

ZARNIC, Dr. Ivan

"Salt Vaccine against Newcastle Disease Prepared from Mukteswar Strain." Dr. Marko Zeljko & Dr. Ivan Zarnic, - Vets. & scientific collaborators of the Inst. for Vet. & Medical Researches, Zagreb.

SOURCE: Vet., BROJ 8-9-10, p. 788, 1952

ZARNIC, Dr. Ivan

"Adsorbate Vaccine Against Swine Erysipelas." Dr. Ivan Zarnic - Vet. & scientific collaborator of Inst. for Vet. & Med. Researches in Zagreb (Director, Ass. Prof. Dr. Matija Winterhalter).

SOURCE: Vet. SVEZAK 1, p. 93, 1953

SEGENOV, A.D., prof., otv. red.; GOL'DSHTEYN, M.M., prof. red.;
ZARNITSKAYA, B.M., red.; ZARNITSKAYA, B.M., starshiy nauchn.
sotrudnik, red.; KUZNETSOVA, S.M., red.; RABINOVICH, A.M.,
prof., red.; CHAYKA, V.V., doktor med. nauk, red.; ZAGRA-
NICHENYY, B., tekhn. red.

[Transactions of the Leningrad Tuberculosis Research
Institute; problems in the clinical aspects of tubercu-
losis] Voprosy kliniki tuberkuleza; trudy instituta. Le-
ningrad, 1960. 272 p. (MIRA 14:5)

1. Leningrad. Leningradskiy nauchno-issledovatel'skiy institut.
2. Rukovoditel' podrostkovogo otdeleniya Leningradskogo gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza (for Goldshteyn).
3. Rukovoditel' fizioterapevticheskogo otdeleniya Leningradskogo gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza (for Zarnitskaya).
4. Rukovoditel' rentgenologicheskogo otdeleniya Leningradskogo gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza (for Rabinovich).
5. Rukovoditel' laboratorii klinicheskoy fiziologii Leningradskogo gosudarstvennogo nauchno-issledovatel'skogo instituta (for Chayka)

(TUBERCULOSIS)

ZARNITSKAYA, B.M., starshiy nauchnyy sotrudnik; KHARCHEVA, K.A., dotsent

Functional disorders of the nervous system in pulmonary tuberculosis;
based on data from an overall study. K izuch. roli nerv. sist. v pat.,
immun. i loch. tub. no. 2:84-91 '61. (MIRA 15:10)

1. Iz otdeleniya fizioterapii (zav. - B.M. Zarnitskaya) i kafedry
legochnogo tuberkuleza Gosudarstvennogo instituta dlya
usovershenstvovaniya vrachey (zav. - prof. A.D. Semenov).
(TUBERCULOSIS) (NERVOUS SYSTEM)

ZARNITSKAYA, B.M., kand.med.nauk

Aerosol therapy in pulmonary tuberculosis. Probl.tub. 36
no.7:70-75 '58. (MIRA 12:8)

1. Iz Leningradskogo instituta tuberkuleza (dir. - prof.A.D.
Semenov). (AEROSOL THERAPY) (TUBERCULOSIS)

L 9610-66 ENT(d)/EXP(1) ISP(c) BB/GG

ACC NR: AR5014365

SOURCE CODE: UR/0271/65/000/005/B057/B058

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5B422

AUTHOR: Breydo, M. D.⁴⁴; Goncharov, A. M.⁴⁴; Zheglova, N. V.⁴⁴
Zarnitsyn, G. D.⁴⁴; Kotel'nikov, I. V.⁴⁴; Moshkina, T. V.⁴⁴; Tarantovich, A. S.⁴⁴

TITLE: TEVM digital computer

CITED SOURCE: Tr. po vopr. primeneniya elektron. vychisl. mashin v nar.
kh-va. Gor'kiy, 1964, 171-173

TOPIC TAGS: digital computer, industrial digital computer

TRANSLATION: The TEVM digital computer is intended for planning operation and route flowsheets on the basis of developed algorithms and for other functions connected with processing. The necessity of storing the characteristics of the product is a special feature of the machine; the volume of this information is rather large. The TEVM machine has three addresses and operates on a fixed-

Card 1/2

UDC: 681.142.343

L 8610-66
ACC NR: AR5014365

after-18-digit-point system. There are 48 digits in a word (one number or one instruction). An operation code takes 6 digits. Special routine also takes 6 digits; the balance is divided among the three addresses. The computer has 4 types of storage: (1) an internal magnetic storage for 512 words with an access time of 6 microsec; (2) an intermediate magnetic-drum storage for 1024 words with an average access time of 10 millisec; (3) a nonvolatile magnetic-drum storage for information readout with a capacity of 2048 words and an average access time of 10 millisec; (4) a magnetic tape of 100 000-word capacity. The working frequency of the computer is 25 kc; the synchronization depends on the magnetic drum. A total of 39 instructions can be carried out, and the average speed is 1500 operations per sec. The adder is of the trigger-register type with a high-speed carry, no shift. Data photo input reads from a telegraph tape; manual keyboard input is also provided. A 20-number-per-sec output uses a printer. The computer comprises 4000 transistors and takes 3 kw. It occupies an area of 15 m². Bib. 7, fig. 1.

SUB CODE: 09

Card 2/2 jrn

ZARNITSKIY, G.E., kand.tekhn.nauk, dotsent

Use of the excess potential energy of natural gas for production of electric power and refrigeration. Izv. vys. ucheb. zav.; energ. 6 no.2:77-86 F '63. (MIRA 16:3)

1. Krasnodarskiy filial Vsesoyuznogo zaochnogo inzhenerno-stroitel'nogo instituta.
(Gas, Natural) (Refrigeration and refrigerating machinery)
(Electric power)

ZARNITSKIY, G.E., dotsent, kand.tekhn.nauk

Thermodynamic properties and I-S diagram for normal butane.

Izv. vys. ucheb. zav.; energ. 3 no. 7:88-96 J1 '60.

(MIRA 13: 8)

1. Krasnodarskiy institut pishchevoy promyshlennosti.
(Butane--Thermal properties)

ZARNITSKIY, G.E.; KONOVALOV, V.A.; KORABLIN, V.V.

Investigation of the operation of a starting turbine in gas-distributing station No.4 in Krasnodar. Gaz. delo no.9:9-13
'63. (MIRA 17:8)

1. Krasnodarskiy filial Vsesoyuznogo zaochnogo inzhenerno-stroitel'nogo instituta i Gazopromyshlovoye upravleniye No.1.

ZARNITSKIY, G.E.

~~Prospects for the use of gas turbines in oil and fat plants.~~
Trudy KIPP no.16:157-160 '57. (MIRA 12:7)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Mekhanicheskiy fakul'tet, kafedra energetiki.
(Gas turbines)

ZARNITSKIY, G.E.

USSR/Chemical Technology - Chemical Products and Their
Application. Fats and Oils. Waxes. Soap. Detergents.
Flotation Reagents.

I-10

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2687

Author : Zarnitskiy, G.E., Kopeykovskiy, V.M., Troyanova, N.L.,
Shcherbakov, V.G.

Inst : Krasnodar Institute of the Food Industry

Title : Steam Expenditures and Ways of Increasing the Heat-Utiliza-
tion Coefficient in Oil-Extracting Plants.

Orig Pub : Tr. Krasnodarsk. in-ta pishch. prom-sti, 1956, No 14, 75-80

Abstract : Different operating conditions of distillation columns of
oil-extracting plants were studied. It was found that
when the rate of miscella feed is increased up to 8.7-9.3
m³/hour, steam consumption is reduced by 8%; in this man-
ner, in the extraction department of a plant that

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USSR/Chemical Technology - Chemical Products and Their
Application. Fats and Oils. Waxes. Soap. Detergents.
Flotation Reagents.

I-10

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2687

processes 400 tons of sunflower seed per day, a saving of
718 tons of nominal fuel is effected on the yearly basis.

Card 2/2

ZARNITSKIY, G.M.; MATVEYEV, V.P.

~~Energy~~ expenditure indices of equipment used for continuous
production of soap in a vacuum. Izv. vys. ucheb. zav.; pishch.
tekh. no.1:87-91 '58. (MIRA 11:8)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra ener-
getiki. (Soap industry)

ZARITSKIY G.E.
ZARITSKIY, G.E., kand. tekhn. nauk.

Heat supply for plants of the oil and fat industry. Masl.-zhir. prom.
23 no.8:35-38 '57. (MIRA 10:12)

1. Krasnodarskiy institut pishchevoy promyshlennosti.
(Oil industries--Equipment and supplies) (Heat engineering)

ZARNITSKIY, G.N., kandidat tekhnicheskikh nauk; KOPEYKOVSKIY, V.M., kandidat tekhnicheskikh nauk; TROYANOVA, N.L., inzhener; SHCHERBAKOV, V.G., inzhener.

Ways of increasing the heat utilization coefficient in oil extraction plants. Masl.-zhir.prom. 21 no.2:26-28 '56. (MLRA 9:7)

1.KIIP.
(Extraction apparatus)

SIDOROV, N.A.; GRIGOR'YEV, V.I.; ZARNITSKIY, G.E.

Temperatures of casing columns during well exploitation. Trudy
KF VNII no.5:126-137 '61. (MIRA 14:10)
(Oil well casing)

PAVLOVICH-VOLKOVYSKIY, A.G.; ZARNITSKIY, S.Kh.

Obtaining high-quality calcium fluoride from gases of superphosphate
production. Ukr.khim.shur. 24 no.6:805-808 '58. (MIRA 12:3)
(Calcium fluoride)
(Phosphate industry--By-products)

5 (2)

AUTHOR:

Zarnitskiy, S. Kh.

SOV/32-25-6-13/53

TITLE:

Formaldehyde Method for the Determination of Sulphuric Acid
in Waste Gases of Sulphuric Acid Production (Formal'degidnyy
metod opredeleniya sernoy kisloty v khvostovykh gazakh
sernokislotnogo proizvodstva)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 6, pp 677-678 (USSR)

ABSTRACT:

To determine minute droplets of sulphuric acid in waste gases
of sulphuric acid production it is necessary to use an
inhibitor to prevent oxidation of the SO_2 to SO_3 , as otherwise
higher analytical results would be obtained. Publications
recommend for this purpose the use of a 0.1 % hydroquinone
solution. It was observed, however, that inhibition proceeds
very slowly. Owing to this reason, a formaldehyde solution
was applied in the case under review. This method was tested
on synthetic mixtures and industrial gases. Two experimental
series were made in this connection. In the first case a
certain amount of sulphuric acid was added to the
formaldehyde solution, SO_2 and N_2O_3 were passed through, and
the content of sulphate was then determined according to the

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Formaldehyde Method for the Determination of
Sulphuric Acid in Waste Gases of Sulphuric Acid Production

SOV/32-25-6-13/53

chromatic method (Table 1). In the second case the industrial gases were passed through two flasks - the first one containing a 3 % hydrogen peroxide solution and the second a 5 % formaldehyde solution - and the content of nitrogen oxides was then determined in both flasks (Table 2). The method yields reliable results at a content of up to 2 % SO_2 and N_2O_3 . There are 2 tables.

ASSOCIATION: Vinnitskiy superfosfatnyy zavod (Vinnitsa Superphosphate Plant)

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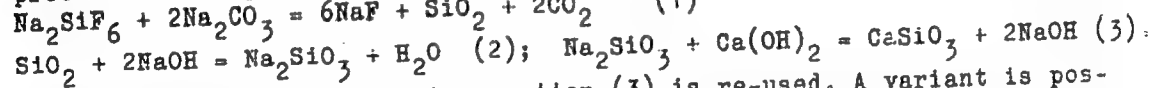
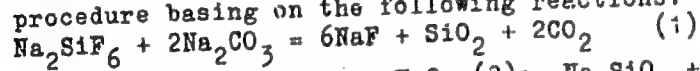
S/073/60/026/001/019/02
B004/B054

AUTHOR: Zarnitskiy, S. Kh.

TITLE: Method of Producing High-quality Sodium Fluoride

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol 26, No. 1,
pp. 121-125

TEXT: The usual method of producing NaF by suspension of Na_2SiF_6 in soda solution yields a product of at most 75% NaF contaminated with SiO_2 . A concentration to 95% NaF is subject to high losses. The author suggests a procedure basing on the following reactions:



NaOH regenerated according to equation (3) is re-used. A variant is possible in which the sodium silicate of equation (2) directly reacts with sodium fluorosilicate: $3\text{Na}_2\text{SiO}_3 + \text{H}_2\text{SiF}_6 = 6\text{NaF} + 4\text{SiO}_2 + \text{H}_2\text{O} \quad (4)$; and

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Method of Producing High-quality
Sodium Fluoride

S/073/60/026/001/019/02:
B004/B054

$2\text{NaF} + \text{Ca}(\text{OH})_2 = \text{CaF}_2 + 2\text{NaOH}$ (5). CaF_2 and CaSiO_3 can be used as fillers in the rubber industry. The NaF yield is 83-92%. To obtain CaSiO_3 suitable as a filler with low contamination by Na_2O , it is necessary to use either 6-10% NaOH and solid $\text{Ca}(\text{OH})_2$, or slaked lime and 20-25% NaOH. In the latter case, the NaF yield is higher. The filtering rate of CaSiO_3 and CaF_2 can be increased to $4 \text{ m}^3/\text{h}$ per 1 m^2 of filter by adding 10% oleyl dimethyl amine. In operating with dry CaO, 1100 kg of water must be evaporated per 1 ton of 98% NaF. The concentration of other difficultly soluble fluorides containing SiO_2 as impurity is possible in the same way. The author thanks G. I. Mikulin for a discussion. There are 2 tables and 1 Soviet reference.

ASSOCIATION: Vinnitskiy superfosfatnyy zavod (Vinnitsa Superphosphate Plant)

SUBMITTED: December 30, 1958

Card 2/2

ZARNITSKIY, S. Kh.

Analysis of gases from the manufacture of sulfuric acid,
Zav.lab. 27 no.2:138-139 '61. (MIRA 14:3)

1. Vinnitskiy superfosfagnyy zavod,
(Sulfuric acid)
(Gases—Analysis)

ZARNITSKIY, Ya.; POLEV, Yu.

Motortruck with freight lifting tail gate. Avt. transp. 41
no.9:42-44 S '63. (MIRA 16:10)

1. Gor'kovskiy avtomobil'nyy zavod.

ZARNITSKII, Ya., iznh.

Proper door fitting on the "Volga" automobile. Avt. transp. 41
no. 2:18-19 F '63. (MIRA 16:2)

(Automobiles---Bodies)

ZARNITSKIY, YA. M.
USSR/Miscellaneous - Metallurgy

Card 1/1

Author : Zarnitskiy, Ya. M.
Title : Design of a Drop Hammer without a Projecting Edge
Periodical : Stan. i Instr. Ed. 1, 38, Jan/1954
Abstract : A brief description is given of a drop hammer without a projecting edge. Approximately 8000 pieces were forged by means of this hammer before it became clogged. The author also states that, whereas, in the drop hammer equipped with the projecting edge the weight of the moving parts is 2000 kg, the weight of the same parts in a hammer without the projecting edge is only 750 kg.
Drawings.

Institution :

Submitted :

ZARNITSKIY, Ya.M.; POLEV, Yu.M.

Body and cab door locks for GAZ automobiles. Avt. prom. no. 1:5-7
Ja '61. (MIRA 14:4)

1. Gor'kovskiy avtozavod.
(Locks and keys) (Automobiles--Equipment and supplies)

ZARNITSKIY, Ya.M.

Hammer stamp without a burr bridge. Stan.i instr. 25 no.1:38
Ja '54. (MLRA 7:2)
(Punching machinery)

ZARNITSKAYA, B.M., kand.med.nauk

Effect of resection of the lung on cardiac function in tuberculous patients according to electrocardiographic data. Probl.tub. 37
no.6:48-55 '59. (MIRA 13:2)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta tuberkuleza (direktor - A.D. Semenov).
(PNEUMONECTOMY off.)
(ELECTROCARDIOGRAPHY)

L 00374-66 ENT(d)/EED-2/EWP(1) IJP(c) BB/GG
ACCESSION NR: AR5013965 UR/0284/65/000/005/0007/0007
621:65.011.56

SOURCE: Ref. zh. Voprosy tekhnicheskogo progressa i organizatsii proizvodstva v mashinostroyenii. Otd. vyp., Abs. 5. 35. 63

AUTHOR: Breydo, M. D.⁴⁴; Goncharov, A. M.⁴⁴; Zheglova, N. V.⁴⁴; Zarnitsyn, G. D.⁴⁴
Kotel'nikov, I. V.⁴⁴; Moshkina, T. V.⁴⁴; Tarantovich, A. S.⁴⁴

TITLE: TEVM digital computer

CITED SOURCE: Tr. po vopr. primeneniya elektron. vychisl. mashin v nar. kh-ve. Gor'kiy, 1964, 171-173

TOPIC TAGS: digital computer, triple address system, computer design, computer performance range / TEVM computer, TEVM digital computer

TRANSLATION: The TEVM digital computer was designed for calculations used in planning production technology, including the process and routing of flowsheets based on pre-evolved algorithms. It is characterized by a requirement for storage of a number of element symbols in its memory system. It represents a triple address unit and operates on a system with a comma fixed after 18 digits. The total number of digits in a term is 48 (one number or one command). The operation code is expressed by 6 digits, another 6 digits are used

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I. 00374-66

ACCESSION NR: AR5013965

for recording special instructions and the remaining digits are divided between three addresses. The unit is equipped with four memory systems: 1) a magnetic operating memory, capacity 512 terms, rotation period 6 msec; 2) an intermediate memory on a magnetic drum, capacity 1024 terms, average rotation period 10 msec; 3) permanent memory on a magnetic drum, capable of data readout only, capacity 2048 terms, average rotation period 10 msec; 4) magnetic tape with a capacity of 100,000 terms. The computer operates on a frequency of 25 kc, power consumption is 3 kw, output rate 20 terms/sec. A total of 39 commands can be performed; the unit operates at an average speed of 1500 operations per second. The unit employs semiconductors (4000 triodes), an integrator in the form of a trigger register with a continuous carry and without provision for shifts and a data input system either from a manual keyboard or via a tape reading photoinput system. The unit occupies 60 m². BBl. with 7 titles; 1 illustration. N. S.

SUB CODE: DP

ENCL: 00

Card

2/2

ZABYTYKH, S.K. (Perm)

Defectless va. of locomotives. Zhe1. dor. transp. L7 no. 5:55-57
(MIRA 18:6)
My 165.

1. Glavnyy lish. Ikhovskiy depa Perm' II Sverdlovskoy dorogi.

ZARNITSYN, V.I.

Safety guards for swing saws. Der.prom.5 no.8:21 Ag '56.
(MLBA 9:10)

1.Kiyevskiy derevoobrabatyvnyushchiy kombinat.
(Saws--Safety appliances)

GARASEVICH, G.I., inzhener; ZARNITSYN, V.I.

Jointing machine for automatic lines. Der.prom.5 no.11:22-23
H '56. (MIRA 10:1)

1. Kiyevskiy derevoobrabatyvayushchiy kombinat.
(Woodworking machinery)
(Joinery)

ZARNITSYN, V.I.

Cutting tool for parquet borders. Der.prom.5 no.4:22 Ap '56.
(MIRA 9:7)

1.Kiyevskiy derevesobrabatyvayushchiy kombinat.
(Woodworking machinery)

ZARNOCH, J., mgr inż.

Selection of torsional vibration dampers for Polish-made traction engines based on measurements of torsional vibrations of crankshafts. Techn motor 12 no. 4/5: 109-110 Ap-May '62.

1. Biuro Konstrukcyjne Przemysłu Motoryzacyjnego, Warszawa.

PESCHEW, P. D. [Peshev, P. D.]; ZARNORETSCHKI, O. St. [Tšurnorechki, O.]

Investigation of raw material for obtaining ferrite with rectangular hysteresis loop. Doklady BAN 14, no.7:707-710 '61.

1. Wissenschaftliches Forschungsinstitut für Kinematographie und Radio.

(Raw materials) (Ferrite) (Hysteresis)

PERSONEN, P.D. [Poshev, P.D.]; ZARNORETSCHKI, O. St. [TSyrmorechki, O.St.];
ARSHINKOV, Iv.St. [Arshinkov, Iv.St.]

Preparation of needle-forming gamma iron oxides. Doklady BAN 15
no.1:53-56 '62.

1. Wissenschaftliches Forschungsinstitut für Kinematographie und
Radio. Vorgelegt von Akademiemitglied R.Kaischew [R. Kaishev].

S/081/62/000/005/006/112
B158/B110

AUTHORS: Zarnoretschki, O. St., Paschew, P. D.

TITLE: Differential thermal analysis of raw material for preparation of magnetostable oxide materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 52, abstract 5B331 (Dokl. Bolg. AN, v. 13, no. 5, 1960, 563 - 566)

TEXT: $\text{FeC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$, $\text{CoC}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$, BaC_2O_4 , and a number of coprecipitated iron-cobalt and iron-barium oxalates are studied by a thermographic method. It is established that the coprecipitated iron-cobalt oxalates behave as double salts, dehydrating and decomposing at a higher temperature than pure oxalates. The iron-barium oxalates behave as mechanical mixtures. [Abstracter's note: Complete translation.] ✓

Card 1/1

94, 2200

S/196/62/000/017/003/005
E194/E155

AUTHORS: Peschew, P.D., and Zarnoretschki, O.St.
TITLE: An investigation of raw materials for producing ferrites of rectangular hysteresis loop
PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.17, 1962, 4, abstract 17 B 26. (Dokl. Bolg. AN, v.14, no.7, 1961, 707-710). (German; summary in Russ.).
TEXT: The thermographic characteristic in the temperature range of 20 to 1100 °C is given for copper-manganese-iron, nickel-manganese-iron and cobalt-manganese-iron oxalates. It is established that copper-manganese-iron and some cobalt-manganese-iron oxalates, when co-precipitated, form mechanical mixtures. The remaining part of the cobalt-manganese-iron and nickel-manganese-iron oxalates form mixed crystals and can be used for the low-temperature production of ferrites. 3 illus., 9 references.
ASSOCIATION: Nauchno-issledovatel'skiy in-t kinematografii i radiotekhniki, NRB (Scientific Research Institute for Cinematography and Radio-engineering, Bulgarian People's Republic).
Card 1/1
[Abstractor's note: Complete translation.]

ZAROVCHATSKIY, V., kapitan, master sporta SSSR

In the vanguard of an airborne landing. Av. 1 kosm. 48
no.12:39-42 D '65. (MIRA 18:11)

Distr: 483d

Pierwszy w Polsce Reaktor Jądrowy (The First Polish Nuclear Re-
actor), by L. Labno and K. Zarnowski; Warsaw, 1958, 106 pp

This booklet describes the construction and operation of the first nuclear reactor in Poland of Soviet production. It was built for experi-
mental purposes, for scientific research, and for the production of arti-
ficial radioactive isotopes.

The reactor is of the tank type. It is immersed in a large aluminum tank filled with distilled water. The primary coolant is water and it is water-moderated. The fuel is 10% enriched uranium. The critical uranium weight is a few tens of kilograms. The fuel elements consist of thin tubular rods clad in aluminum. The rods are half a meter long and form a regular lattice of 17.5-mm spacing. The full charge consists of 800 rods containing 65 kg of uranium (hence 6.5 kg of U-235). For easier charging the rods are arranged in 52 clusters, suspended in aluminum matrices with 16 rods each. The clusters are set in a cage of aluminum, securing flow passage of the coolant between the rods. Nine holes run through the cage for control and safety rods. Around the core 8 isotope tunnels are built. In the core a neutron flux of $2 \cdot 10^{13}$ neutron/sec/cm² is produced; in the vicinity of the tunnels the flux is lower. But flux losses are not high, because the water inside the core serves also as reflector. Although the power of the reactor is only 2,000 kw, which is not much in comparison

L. L. ZBINO and K. ZARNOWIECKI
with plutonium producing reactors, the neutron flux of $2 \cdot 10^{13}$ is rather high. This paradox may be explained if we keep in mind that the whole power is released in a volume of 0.1 m^3 .

Besides the vertical tunnels for isotope production, nine horizontal experimental channels surround the core radially. They permit the extraction of gamma radiation or neutrons from the core for experimental purposes. These channels are opened or closed by remote control. A tenth channel is a thermal column filled with graphite and intended to provide strong thermal neutron beams.

A water circulation system serves for heat removal from the core. The water heated in the core is sucked out by three pumps of 120 kw power and a flow rate of $1,000 \text{ m}^3/\text{hr}$. After passing heat exchangers the water is pumped back into the core. In the heat exchanger a second water loop cools the water. The second water loop is cooled in a sparge tank.

TH
The cooling loops keep the water in the core at a temperature of 35°C , while the surface of the fuel elements have a temperature of 90°C . Such a low temperature does not produce deterioration of the fuel elements. To avoid the contamination of water by impurities, the cooling systems, the tubes, the pumps, the exchangers, and valves are made of stainless steel containing about 20% chromium and 10% nickel. The structural material used in the core is aluminum, which is resistant to activation by neutrons.

27314

P/046/60/005/011/003/018
D249/D303

21/000

AUTHORS:

Żarnowiecki, Krzysztof, and Szulc, Przemysław

TITLE:

A photoneutron source for the start-up process in
the WWR-S reactor

PERIODICAL: Nukleonika, v. 5, no. 11, 1960, 705 - 711

TEXT: A photoneutron source yielding $10^7 - 10^8$ n/sec is described which reduces the starting-up time of the reactor when placed in the core. A strong beam of γ -radiation and a sufficient amount of a neutron emitter are necessary. Energy of the γ -rays must exceed the threshold energy of the (γ, n) reaction for the selected material which is commonly Be or D_2O . In the present work, the source

consisted of Be irradiated by γ -radiation from the fission products of uranium. The beryllium was held in Al containers 12 mm with 1 mm walls, 55.5 cm long, closed at both ends with Al stoppers, rolled and welded under argon to ensure a tight seal. A few sources were constructed, each Al tube being packed with ~ 20 g of Be

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P/046/60/005/011/003/018
D249/D303

A photoneutron source for the ...

flakes which were then rammed in. Precautions were taken to avoid the toxic effects of Be dust. Sb powder, (~ 60 g), which constituted an additional source of γ -radiation of half-life equal to 60 days and of activity ~ 100 c, was added to each tube to fill the voids between the flakes of Be. The effects of these additions are negligible when the reactor is started up, but the activity of Sb decays at a slower rate than that of the fission products after reactor shut-down and thus prolongs the life of the source. Effective yields, S_{ef} , are defined as the number of neutrons emitted by the source per second, which actually cause U fission. Maximum values of S_{ef} are obtained soon after the reactor is shut down (Fig. 2). Approximately 20 min. after shut-down the (γ, n) reaction of fission products ^{87}Br and ^{137}I dies out and the Sb-Be reaction becomes dominant. The yield decreases more slowly thereafter, reaching values of $\sim 5 \times 10^8$ and 6×10^7 n/sec after 1 and 10 hours respectively. S_{ef} was determined by measuring the "zero" power level of a shut-down sub-critical reactor of a known multiplication coef-

Card 2/6

27314

P/046/60/005/011/003/018
D249/D303

A photoneutron source for the ...

efficient, ($k_{ef} < 1$), with BF_3 counters placed in the channels of the thermal column. Counter readings were transformed into reactor power units by comparison (at power levels of the order of 100 mW) with the current of the starting-up ionization chamber which is proportional to the thermal power of the reactor. Total neutron yields of the source (S_c) were not determined, as this would entail calculating the probabilities of preventing the escape of fast thermal neutrons and of avoiding resonance absorption, and also calculating the efficiency of utilizing the thermal neutrons. S_{ef} is estimated as a half of S_c . "Zero" power level of a shut down reactor, in watts, (P), is related to the effective yield by the equation $\frac{S_{ef}}{1 - k} = Pc$, where k is the multiplication coefficient of a sub-critical reactor and c is a proportionality coefficient equal to 3.1×10^{10} n/W. It was found that under normal conditions, (starting up over 10-100 hours after a previous working period of 65-100 hrs)

4

Card 3/6

2731h

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D249/D303

A photoneutron source for the ...

when k_{ef} was 0.93, the "zero" power of the reactor was 10-50 mW and S_{ef} was $2 \times 10^7 - 10^8$ n/sec. The method of calculating the neutron yields is presented in detail, and specific values are used to show good agreement between the calculated and the experimental values. Neutron emission from D_2 in water contained in the reactor

was found to be negligible compared to that from the photoneutron source, at the time of the experiment, i.e. a number of hours after shutting the reactor down. There are 2 figures and 6 non-Soviet-bloc references. The four most recent references to the English-language publications read as follows: D.J. Hughes, Pile Neutron Research, Cambridge Mass., 1953; T. Rockwell, III Reactor Shielding Design Manual, Princeton, N. Jersey, 1956; I.M. Hollander, I. Perelman and G.T. Seaborg, Table of isotopes, Revs. Modern Phys. 25, 469, 1953; B.T. Price, M.A. Horton, and K.T. Spinney, Radiation Shielding, London, 1957. X

ASSOCIATION: Instytut badań jądrowych, Warszawa, zakład eksploatacji reaktora (Nuclear Research Institute, Warsaw, Reactor Exploitation Department)

Card 4/6

P/046/62/007/006/003/005
D204/D307

AUTHORS: Bieguszewski, Zygmunt, Zarnowiecki, Krzysztof, and
Kostyrko, Andrzej

TITLE: Characteristics of the ion-exchange unit in the pri-
mary cooling system of the 'Ewa' reactor

PERIODICAL: Nukleonika, v. 7, no. 6, 1962, 407 - 417

TEXT: The performance of mechanical and ion-exchange filters is described, particular attention being paid to the ionite unit which had been used successfully over 18 months, operating for 1-2 hours 2-3 times a month. The mechanical porous glass filter was used to remove colloids and macro-molecular compounds from the water and the deposits were found to contain extremely fine particles of the anionite (from the ionite unit), Fe and Al hydroxides and silica, i.e. coagulated corrosion products of the primary cooling system. The filter was cleaned 2-3 times a year, by repeated successive washing with H_2SO_4 and NaOH and finally with deionized water. The ion-exchange filter was produced with a mixture of strongly acidic

Card 1/3

P/046/62/007/006/003/005
D204/D307

Characteristics of the ion-exchange ...

cationite MK-3 and strongly basic anionite IMAK-S4, and was used only when the reactor was not in operation. The flow of water through the unit was 7-10 m³/hr, at ~ 25°C. The resin bed was changed after 18 months although no difficulties had been observed after this period. The new packing consisted of MK-3 and IMAK-S4, washed previously with 1N HCl and 1N NaOH and mixed in the ratio of 5:6.5 by volume. The resultant packing was extremely effective and could be used for only ~ 5 hours every 1-2 months. The original packing was analyzed, by spectroscopy, for radioactive contamination, 12 months after removal from the unit. The original activities of the mechanically separated resins could be largely reduced by a treatment with aq-NaCl, washing with water, regeneration with an acid or alkali and washing with water again. The resins fully maintained their physical and chemical properties and working exchange after regeneration. After separation of the resins in saturated aq. NaCl regeneration, the anionite retained a greater activity than the cationite, owing to the adsorbed cations complexing in the separating solution, to form negatively charged ions which were then adsorbed on the anionite. The spectroscopic measurements were carried out by L. Adamski and S. Pszon. There are 3 tables.

Card 2/3

Characteristics of the ion-exchange ... P/046/62/007/006/003/005
D204/D307

ASSOCIATION: Instytut badań jądrowych, PAN (Institute of Nuclear
Research, PAS)

SUBMITTED: April 1962

Card 3/3

40065
P/046/62/007/006/005/005
D204/D307

21.6000
AUTHORS:

Kostyrko, Andrzej, Wiśniewski, Artur, and
Żarnowiecki, Krzysztof

TITLE:

A method of preparation of scintillating ZnS layers
for detecting α -particles

PERIODICAL: Nukleonika, v. 7, no. 6, 1962, 425 - 429

TEXT: The described method was aimed at producing α -detectors possessing the highest possible efficiency. Scintillator layers of predetermined, even thickness ($2-20 \text{ mg/cm}^2$) with the correct grain distribution may be successfully prepared by sedimentation. The resulting delicate coatings (deposited on methyl polymethacrylate) are best bonded firmly onto the base by exposing the coatings to chloroform vapor, which dissolves the outermost layer of the plexiglass. As a result the scintillating layer sinks in to a shallow depth, so that the top of the layer remains perfectly free of the bonding agent. The best results were obtained with Grade 256/1 ZnS, produced by Derby of Gt. Britain, deposited to a thickness of 4 mg/cm^2 on an organic glass base. The optimum performance was observed.

Card 1/2

A method of preparation of ...

P/046/62/007/006/005/005
D204/D307

served when the discrimination was made high. The relative output and amplitude of the light signal were high. The method, which may be used on laboratory or industrial scale, and which is simple, inexpensive and reproducible, will be protected by a patent. There are 6 figures. ✓

ASSOCIATION: Instytut badań jądrowych, PAN, Warsaw (dział dozymetrii) (Institute of Nuclear Research, PAS, Warsaw (Dosimetry Section))

SUBMITTED: April 1962

Card 2/2

KOSTYRKO, Andrzej; PSZONA, Stanislaw; ZARNOWIECKI, Krzysztof

Method of producing standard sources of contaminations for the calibration of dosimetric instruments. Nukleonika 7 no.6:428-429 '62.

1. Instytut Badan Jadrowych, Dzial Dozymetrii, Polska Akademia Nauk, Warszawa.

PSZONA, Stanislaw; ADAMSKA, Bozena; ZARNOWIECKI, Krzysztof

Whole-body counter for internal contamination control.
Nukleonika 8 no.8:565-572 '63.

1. Institute of Nuclear Research, Health Physics Department,
Warsaw.

*

TITLE: Ballot casting method

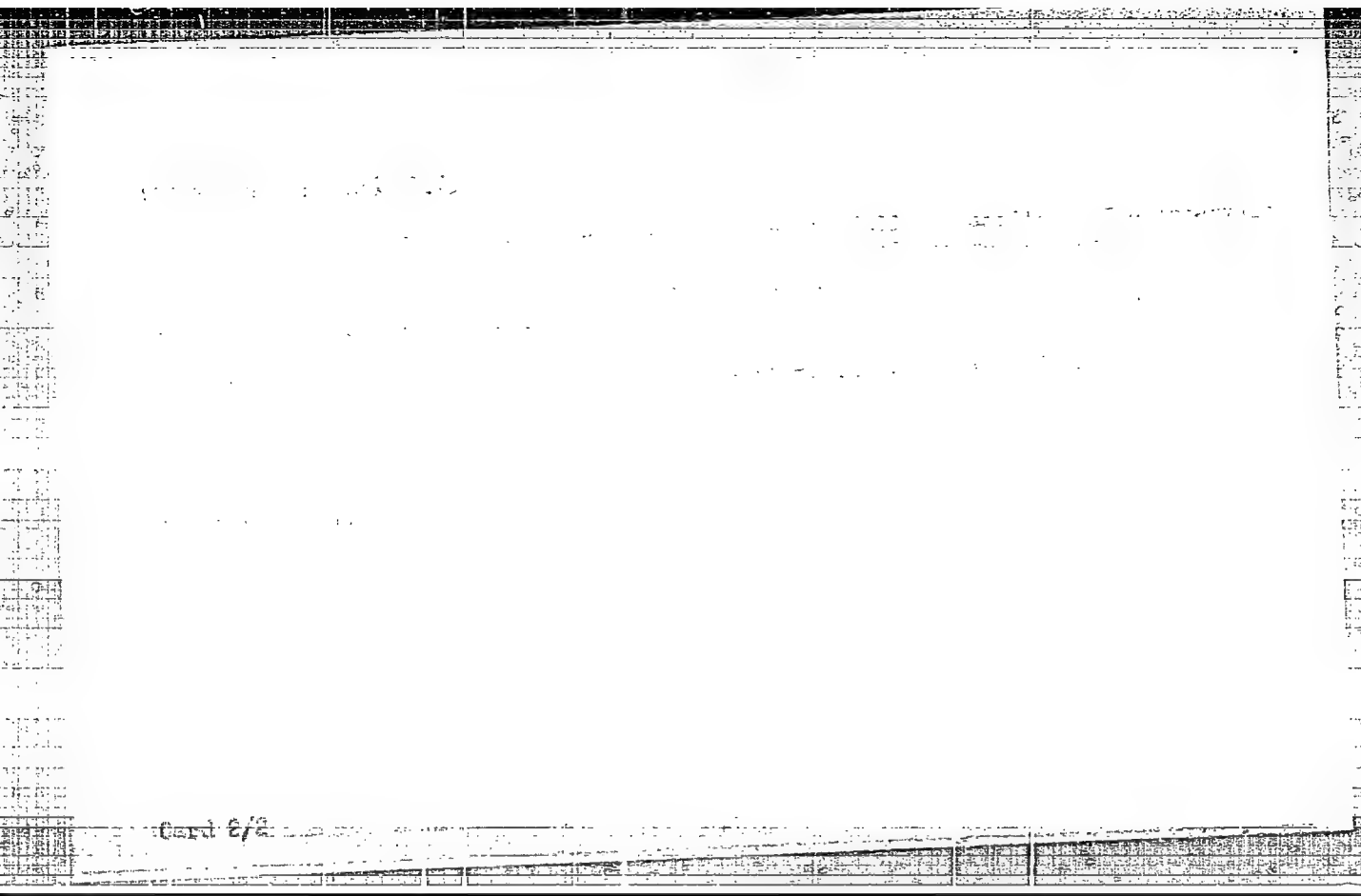
SOURCE: Hukloonia, v. 10, no. 1, 1965, 60-61

ABSTRACT: This article describes a method for casting ballots in a secret manner.

The method involves the use of a special ballot box and a special ballot paper. The ballot paper is folded in a way that the voter's name is hidden from the ballot box. The ballot box is then sealed and the ballots are counted.

The opening are designed so that the voter can see the ballot box and the ballot paper.

Card 1/2



L 22497-65 EMP(a)/T IJP(c) SR
ACC NR: AP6014481

SOURCE CODE: PO/0046/65/010/007/0453/0454

AUTHOR: Zarnowiecki, Krzysztof 49
3

ORG: Department for Radiological Protection, Institute of Nuclear Research, Warsaw
(Zaklad Ochrony przed Promieniowaniem Instytut Badan Jadrowych)

TITLE: Use of alpha-particles for measurement of mica thickness in end window
counter 19

SOURCE: Nukleonika, v. 10, no. 7, 1965, 453-454 15

TOPIC TAGS: collimation, alpha particle, plutonium

ABSTRACT: A ^{239}Pu alpha source was collimated to irradiate an area corresponding to 1 mm or less in diameter. The counter was placed in operation and the count rate was plotted as a function of distance in air of the alpha source from the mica window. The straight-line extrapolated end point, R (in cm), of this plot is related to the thickness d in mg/cm^2 by the relation: $d = 1.45/1.23 [3.72 - (R_p/760) \times (288/273 + t)]$, where p is the atmospheric pressure in mm Hg and t is the air temperature in $^{\circ}\text{C}$. Thicknesses of 0 to $3.5 \text{ mg}/\text{cm}^2$ can be measured with a ^{239}Pu source, and the range of measurement can be extended with the use of higher energy alpha particles. Typical accuracies are $0.1 \text{ mg}/\text{cm}^2$ for uncertainties of $\pm 0.5 \text{ mm}$ in R. Accuracies of $0.05 \text{ mg}/\text{cm}^2$ are feasible with this method. Orig. art. has: 1 figure. [NA]

SUB CODE: 18 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 004
SOV REF: 002
Card 1/1 2

L 23196-66 INT(m)/T JK

ACC NR: AP6014482

SOURCE CODE: PO/0046/65/010/007/0457/0458

AUTHOR: Merta, Andrzej; Zarnowiecki, Krzysztof

ORG: Department of Radiological Protection, Institute of Nuclear Research, Warsaw
(Zaklad Ochrony przed Promieniotworem Instytut Badan Jadrowych)

TITLE: Application of motor-car engine for control of air pollution with radioactive aerosols

SOURCE: Nukleonika, v. 10, no. 7, 1965, 457-458

TOPIC TAGS: radioactive aerosol, air pollution, vehicle engine, gas filter, radioactivity measurement

ABSTRACT: The carburetor of a running automobile engine is used to provide a negative differential air pressure to pass atmospheric air through a particulate filter. In series with the filter, and ahead of the carburetor suction chamber is a gas-flow meter, which gives a measure of the volume of air passing through a given filter so that the radioactivity count of the filter can be related to the air volume. The advantages of this system and the variations in the methods and the conditions of measurement are discussed. Some yields in terms of volume of air filtered per unit time are given for two different arrangements. Orig. art. has: 2 figures. [NA]

SUB CODE: 18 / SUBM DATE: none

Card 1/1 PK

I. 33011-66
 ACC NR: AP6024170
 SOURCE CODE: PO/0046/65/010/012/0791/0806 4/ B

AUTHOR: Czerniewski, Michal--Chernevski, M.; Panta, Przemyslaw--Pan'ta, P.;
 Zielczynski, Mieczyslaw--Zol'chin'ski, M.; Zak, Wieslaw--Zhak, V.; Zarnowiecki,
 Krzysztof--Zharnovotski, K.

ORG: Reactor Exploitation Department, Institute of Nuclear Research, Warsaw; Health
 Physics Department, Institute of Nuclear Research, Warsaw

TITLE: Bone tissue sterilization¹⁹ using reactor fuel gamma radiation

SOURCE: Nukleonika, v. 10, no. 12, 1965, 791-806

TOPIC TAGS: bone, nuclear fuel, gamma radiation, radiation biologic effect,
 radiotherapy

ABSTRACT: An absolute ionization method of measurements of doses absorbed in bone
 tissue, and additional methods were developed. Measurements of spatial dose distri-
 bution in grafts were performed. From the detailed analysis it follows that each
 point of the graft absorbs in sterilization a dose of 3.3 Mrad, with an accuracy of
 20%. In the two years of its application the sterilization method developed has
 proved satisfactory. This was evidenced in sterilization of more than one hundred
 lyophilized human bone grafts successfully used for therapeutical purposes. The
 authors thank Professor K. Ostrowski for his suggestion to use the facilities of the
 ENA reactor for bone tissue sterilization, and also for his valuable comments. The
 authors also thank Mr. J. Aleksandrowicz for over-all assistance in the project, Docent
 Z. Zagorski for discussion on the subject of chemical dosimeters and Mr. T. Berens for
 designing the containers, and general help. Orig. art. has: 12 figures and 14 formulas.

Orig. art. in ENG / NA /
 Card 171 18 / SUM DATE: 14Oct65 / ORIG REF: 003 / SOV REF: 001 / OTH REF: 027
 6715 176C

1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order. The names are: [illegible]

ZARNOWSKI, Eugeniusz

Parasitic worms of forest micromammals (Rodentia and Insectivora)
of the environment of Pulawy. II. Trematoda. Acta parasit. 8 no.8/20:
127-168 Je '60. (EEAI 9:11)

1. Katedra Parazytologii W.S.R. Lublin.
(Poland--Rodentia)
(Poland--Insectivora)
(Poland--Trematoda)

ZARNOWSKI, Eugeniusz

Current status of the study on the problem of fasciolopsis in domestic ruminating animals in Poland. ~~Wied.~~ parazyt. 7 no.1:3-9 '61.

1. Katedra Parazytologii i Chorob Inwazyjnych WSR, Lublin.
(FASCILOPSIS veterinary) (CATTLE dis)

ZARNOWSKI, Eugeniusz (Lublin, Akademicka 11)

Survey of the Polish veterinary parasitology in last three years,
1958-1961. Wlad parazyt 7 no.4/6:745-762 '61.

1. Department of Parasitology, Veterinary Faculty, Lublin.

ZARNOWSKI, Eugeniusz

Summing up of the debates of veterinary parasitology with
particular consideration of liver-fluke. Wiad parazyt 7 no.4/6:
966-967 '61.

ZARNOWSKI, Eugeniusz

Current status of studies on the parasitic fauna of mammals
in Poland. Wlad. parazyt. 9 no.4:341-347 '63.

1. Katedra Parazytologii i Chorob Inwazyjnych WSR, Lublin.
(MAMMALS) (PARASITES) (PARASITIC DISEASES)

ZAJNOMSKI, Eugeniusz; CHOWANIEC, Wieslaw; MALCZEMSKI, Andrzej;
MARANSKI, Czeslaw; ZEBROWSKA, Danuta; JANECEK, Marian

Studies on the therapy of fascioliasis in cattle. III. Hexa -
chlorophene (Bilevon-Bayer) and 2,2'-dichloro-4,4'-dinistro-
1,1'-dioxydiphenol (Bilevon M-Bayer, Bilevon 9015-Bayer).
Wiad. parazyt. 10 no.4:483-485 '64

1. Zaklad Parazytologii i Chorob Inwazyjnych Instytutu Wete-
rynaryjnego w Pulawach i Zaklad Parazytologii Polskiej Aka-
demii Nauk, Warszawa.

[illegible]

Studies on the therapy of fascioliasis in cattle. 1. Extramuc-
cular infections of C67-2. Biol. parazyt. 10 no. 12 (1978) 124.

Studies on the therapy of fascioliasis in cattle. II. Hexachlorocyclopentadiene (Diazinon-Biovet) and Arliothane I.C.I.) and 1,1,1-trichloromethylbenzene (Hetero-Hoechst).

1. Zakład Parazytologii i Chorob Inwazyjnych Instytutu Weterynaryjnego w Lubawach i Zakład Parazytologii Państwowej Szkoły Weterynaryjnej w Warszawie.

ZARNOWSKI, Eugeniusz

Survey of the Polish veterinary parasitology in last three years
(1958-1961). Wiadomosci parazyt., 7 no.4/6:745-762 '61.

1. Department of Parasitology, Veterinary Faculty, Lublin.
(PARASITIC DISEASES veterinary)

ZARNOWSKI, Eurgeiusz; PATYK, Wladyslaw

On the independence of the species *Thominox bohmi* (Supperer, 1953) and its occurrence. *Acta parasit* 8 no.8/20:205-213 Je '60. (EEAI 9:11)

1. Katedra Parazytologii W.S.R. Lublin.
(Poland--*Thominox*)

POLAND/Diseases of Farm Animals. Diseases Caused by Helminths

R

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 88286

Author : Zarnowski, Eugeniusz; Darski Jerzy

Inst : -

Title : Treatment of Ascariasis-Affected Hens.

Orig Pub : Med. weteryn., 1957, 15, No 7, 387-393

Abstract : Various preparations were tested on chicks infected experimentally with *Ascaridia galli*. When CCl₄ was administered once into the crop with a sonde in a 2 ml/kg dose, 100 percent of the birds were cured. Extensive effectiveness (EE) of phenothiazine given with food in a 1.5 g/kg dose amounted to 30 percent, and intensive effectiveness (IE) to 71.9 percent, whereas when a 0.1 ml/kg of wormseed mixed with castor oil was given, IE amounted to 13.9 percent and EE was zero percent. As pyrethrum powder was used in feeds (2 percent), EE equaled 71.4 percent and IE 95.5 percent. Petroleum benzene proved to have little effect and great toxicity. When a 2 ml/kg dose of synthetic benzene was injected into the crop,

Card : 1/2

ZARNOWSKI, Eugeniusz

Critical survey of veterinary parasitological research carried out since the last meeting (1954). Wiadomosci parazyt., Warsz. 3 no.2-3:149-169

1. Z Zakladu Parazytologii Wydz. Wet. Wyzszej Szkoły Rolniczej w Lublinie.
(PARASITOLOGY
veterinary parasitol. research in Poland (Pol))
(MEDICINE, VETERINARY
parasitol. research in Poland (Pol))

ZARNOWSKI, Eugeniusz; DARSKI, Jerzy (Pulawy)

Tests of effectiveness of various drugs in control of helminthiasis in fowl. Wiadomosci parazyt., Warsz. 2 no.5 Suppl:143-144 1956.

1. Zaklad Parazytologii i Chorob Inwazyjnych PIW.
(ASCARIASIS, prevention and control,
Ascaridia galli infect. in fowl, effectiveness of
various drugs (Pol))
(ANTHELMINTICS, therapeutic use,
Ascaridia galli infect. in fowl, comparison of various
drugs (Pol))
(FOWLS, DOMESTIC, diseases,
Ascaridia galli infect., ther. eff. of various drugs (Pol))

ZARNOWSKI, Eugeniusz (Lublin)

Helminthological fauna of forest mammals (Insectivora and Rodentia) in the Pulawy region. II Trematoda. Wiadomosci parazyt., Warsz. 2 no.5 Suppl:239 1956.

1. Zaklad Parazytologii i Chorob Inwazyjnych WSR.
(TREMATODE INFECTIONS, epidemiology,
in small mammals (Pol))

ZARNOWSKI, Eugeniusz

Achievements of the school of parasitology of prof. Dr.
Witold Stefanek. Wiadomosci parazyt., Warsz. 2 no.3:
139-152 1956.

(PARASITOLOGY, education,
in Poland, contribution of W. Stefanek (Pol))
(BIOGRAPHIES,
Stefanek, Witold (Pol))

ZARNOWSKI, Eugeniusz

Observations on cultivation in vitro and on the development of Dictyocaulus filaria in guinea pigs; preliminary communication. Wiadomosci parazyt., Warsz. 4 no.5-6:465-466; Engl. transl. 466-467 1958.

1. Z Zakladu Parazytologii i Chorob Inwazyjnych WSR w Lublinie.

(NEMATODES,

Dictyocaulus filaria, cultivation in vitro & growth in guinea pigs (Pol))

ZARNOWSKI, Eugeniusz

Polish veterinary parasitology in the past 20 years. Wiad.
parazyt.. 10 no.1:3-13 '64.

1. Katedra Parazytologii i Choroób Inwazyjnych Wyższej Szkoły
Rolniczej, Lublin.

ZARNOWSKI, Eugeniusz

Current trends in the control of invasive disease of domestic animals. Wiad. parazyt. 11 no.1:265-268 '65.

1. Katedra Parazytologii i Choroób Inwazyjnych Wydziału Weteryn.
Szkoły Głównej Gospodarstwa Wiejskiego, Warszawa.

ZARNOWSKI, Augustus

Studies on drug therapy during larval stages of fasciolosis.
Wlad. parazyt. 10 no. 1:476-477 '62

1. Zakład Parazytologii i Chorob zżylnych Instytutu Weter-
ynaryjnego w Puławach.

ZARNOWSKI, Jan, mgr inz.

Falling strength testing of electronic devices. Prace inst
teletechm 8 no.2:135-138 '64

ZARNOWSKI, Jan, mgr. inż.

Significance of subtropical climate for the electronic industry.
Przegl. telekom 35 [i.e. 36] no.7:208-211 J1 '63.

1. Instytut Tele- i Radiotechniczny, Warszawa.

P.T.A.

ZARNOWSKI, L.

metallurgy

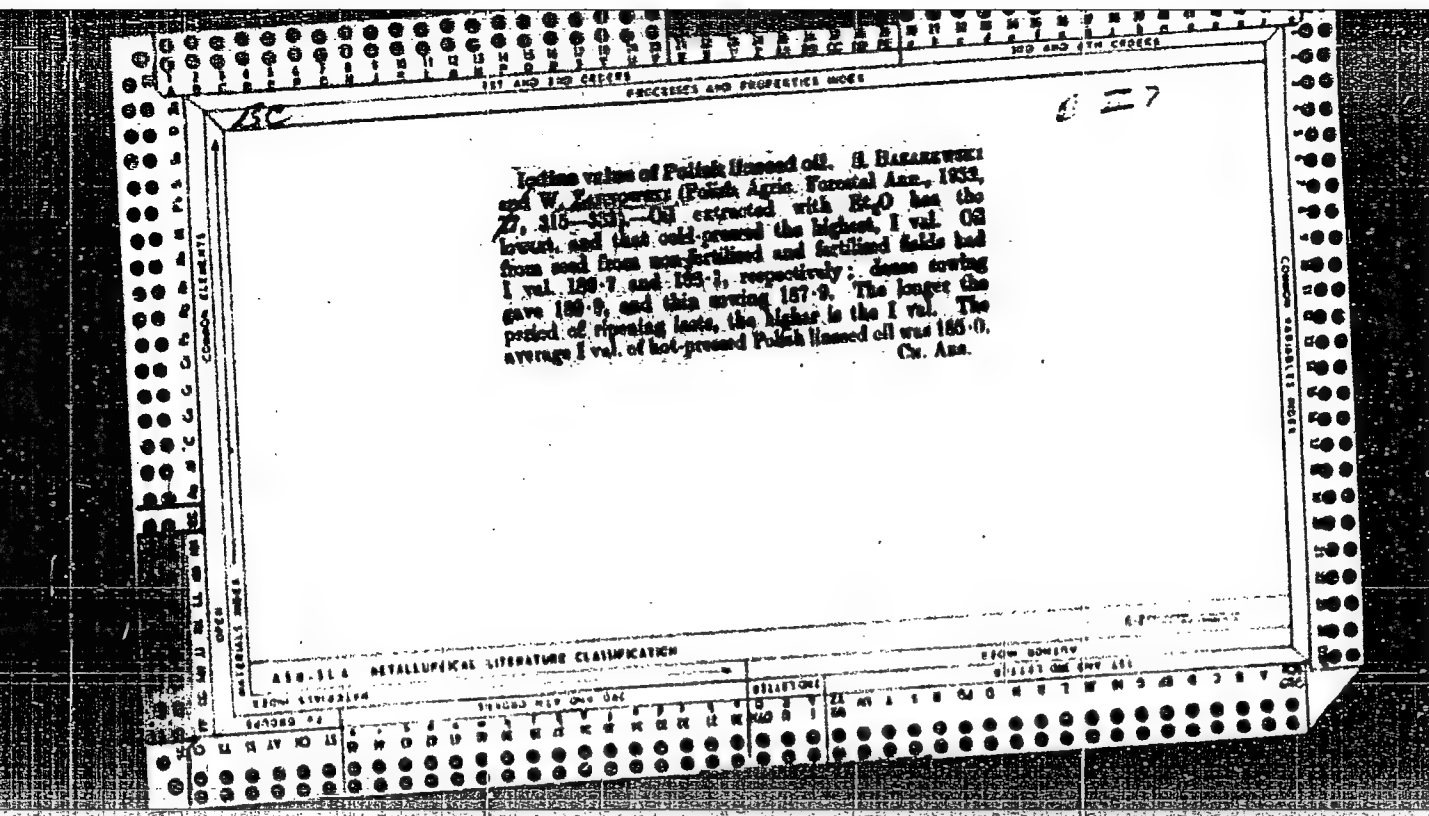
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Zarnowski L. Hot Plastic Processing of Iron and Steel Part 1.

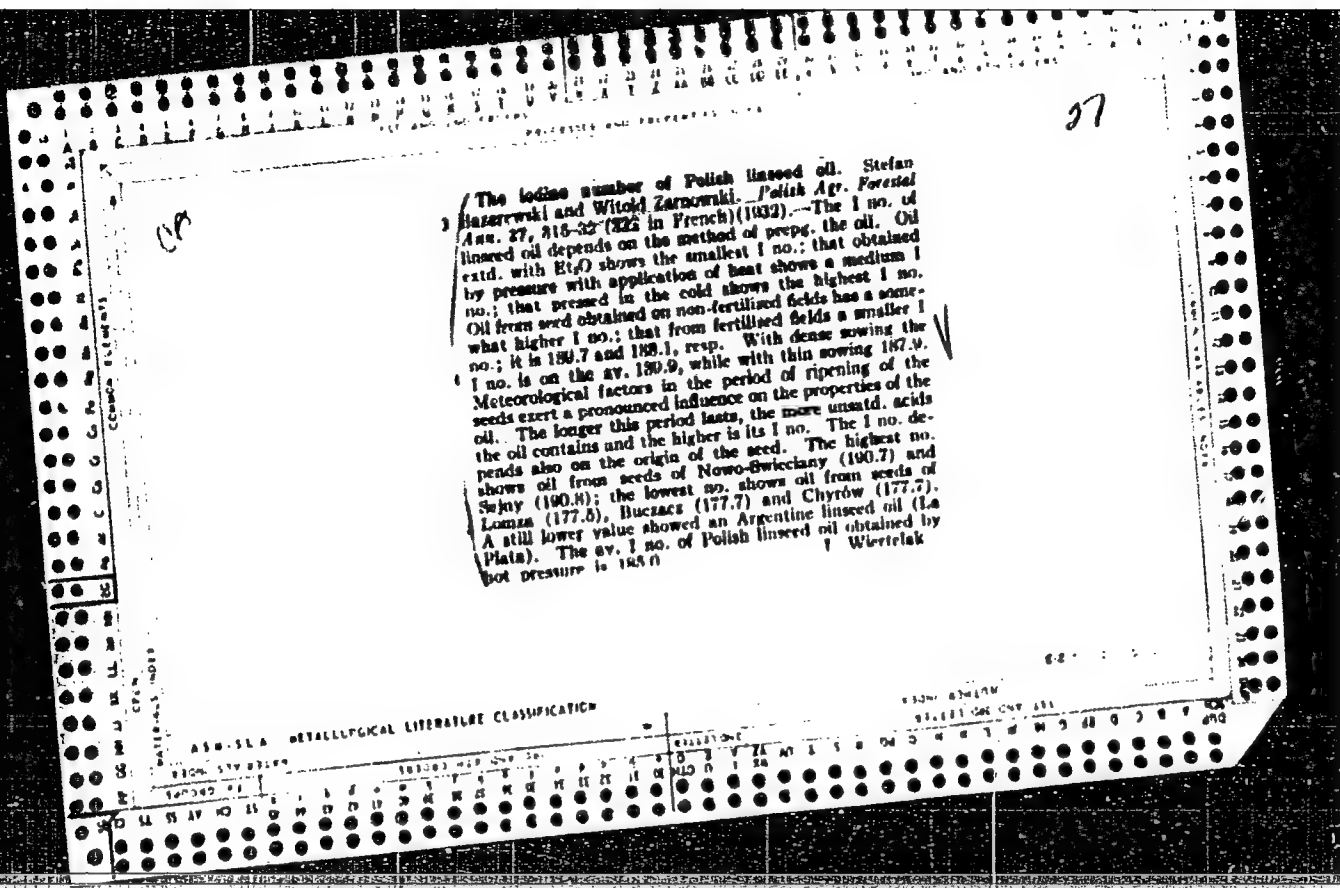
"Główna przeróbka plastyczna żelaza i stali". Katowice, 1947, Centr. Zarz. Przem. Hutn., 4, pp. 179, 198 figs.

Hand forging. Water-driven hammers. Steam hammers. The theory of forging. Determining the power of a hammer and weight of the ram. Steam hammer operation. Determining the chief dimensions of hammers. Foundations. Steam hammer elements. Free forging with a hammer. Forging with large hammers. Belt-driven, pneumatic, strap and steam hammers for drop forging. Belt-driven presses. Drop forging. Notes on dies and drop forging. Forge planning and equipment.



ZARNOWSKI, Wladyslaw, dr inz.

Heating stove for small section rolling mills. Hutnik P 30
no.9:299-301 S '63.



27

ca

The iodine number of Polish linseed oil. Stefan Bazarowski and Witold Zarnowski. *Polish Agr. Forestal Ann.* 27, 318-32 (332 in French) (1932).---The I no. of linseed oil depends on the method of prep. The oil. Oil extd. with Et_2O shows the smallest I no.; that obtained by pressure with application of heat shows a medium I no.; that pressed in the cold shows the highest I no. Oil from seed obtained on non-fertilized fields has a somewhat higher I no.; that from fertilized fields a smaller I no.; it is 189.7 and 189.1, resp. With dense sowing the I no. is on the av. 189.9, while with thin sowing 187.9. Meteorological factors in the period of ripening of the seeds exert a pronounced influence on the properties of the oil. The longer this period lasts, the more unsatd. acids the oil contains and the higher is its I no. The I no. depends also on the origin of the seed. The highest no. shows oil from seeds of Nowo-Swieclany (190.7) and Sejny (190.8); the lowest no. shows oil from seeds of Lomza (177.5), Bucacz (177.7) and Chyrów (177.7). A still lower value showed an Argentine linseed oil (La Plata). The av. I no. of Polish linseed oil obtained by hot pressure is 185.0. J. Wiertelak

ASH-LEA METALLURGICAL LITERATURE CLASSIFICATION

Z ARNYA, Sherbenesku.

RUMANIA / Microbiology. Technical Microbiology.

F-3

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21889

Author : Zarnya, Sherbenesku

Inst :

Title : Materials for Study of Flax Retting in the Rumanian People's Republic. I. Flax Retting Under Laboratory Conditions. A Preliminary Report.

Orig Pub: Rev. Univ. "C.I. Parhon" si Politehn. Bucuresti. Ser. stiins. natur., 1955, No 8, 195-199.

Abstract: A study was conducted on the dynamics of development of microflora related to anaerobic, warm flax retting. The retting process under laboratory conditions lasted 72 hours. The main stimulants of the retting process were isolated in pure form -- Granulobacter pectinovorum and Clostridium felsineum. During the preliminary phase, a double spored Minervin "liquid rod" was constantly found.

-30-

Card : 1/1

ZAROBYAN, A.I., inzh.; AZOTYAN, N.N., inzh.; AVETISYAN, G.H., inzh.

Activated clays of Armenia. Masl.-zhir.prom. 25 no.10:36-37
'59. (MIRA 13:2)

(Armenia---Clay)

ZAROCHENTSEV, G.G., inzh.; LEBEDEV, F.M., inzh.; STANKEVICH, G.I., inzh.;
PET'KO, V.M., kand.tekhn.nauk; FAYERSETEYN, D.G., inzh.

Gas burner with peripheral gas supply for large boiler units.
Elek. sta. 33 no.7:12-15 J1 '62. (MIRA 15:8)
(Boilers) (Gas burners)

ZAROCHENTSEV, G.G., inzh.

Redesigning of the burners of the TP-100 boiler of the Zmiyev
State Regional Electric Power Plant. Elek.sta. 33 no.11:81-82
N '62. (MIRA 15:12)

(Zmiyev—Electric power plants) (Boilers)

ZAROCHEVSEV, G.G., inzh.

Adjustment and operation of a regenerative rotary air preheater.
Elok. sta. 34 no.3:76-77 Mr '63. (MIRA 16:3)
(Air preheaters)

AMERICAN V. 10.1. 1970.

accelerated boiling of block type drum boilers. Elek. stat.
35 no. 1.79-29 Jan '64. (MIRA 17.6)

ZAROCHEN TSEV, G.V.

PLATE 1 FROM THE

Investigation of the stability of the
structure of the ship (1950).
Article. Published in the
Journal of Shipbuilding and
Naval Architecture, No. 1,
1950. 20 p. With 111 illustrations.

Reprint. IV. Engineering. Doctor of
Science. Published in the
Journal of Shipbuilding and
Naval Architecture, No. 1,
1950. 20 p. With 111 illustrations.

Reprint. This collection of articles
at the Institute of Shipbuilding
and Naval Architecture.

Collection. The articles contain the
results of the investigations of the
stability of the structure of the ship.

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S/137/62/000/002/096/144
A060/A101

AUTHOR: Zarochentsev, G. V.

TITLE: Ultrasonic control of the depth of rail casehardening

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 73, abstract 2I491
("Tr. Vses. n.-i. in-ta zh.-d. transp.", 1961, no. 216, 52, 111.)

TEXT: An ultrasonic method is proposed for fast approximate evaluation and control of the depth of casehardening in rails, and the theoretical fundamentals of the damping of ultrasonic vibrations in metal are set forth. Methods are described for the control of depth and partial determination of the structure in the casehardened zone. The design of an instrument for controlling the casehardening zone is described in detail. The instrument is a modified version of a supersonic defectoscope operating on the two-probe principle with pulse excitation. The main parts of the instrument are: a sweep generator, amplifier of the sweep generator, cathode-ray tube, receiver amplifier, receiving probe, and emitting probe. The electrical circuit and the overall view of the instrument are given. Comparison of the results from the investigation by the new methods of rails subjected to casehardening with the data of metallographic

Card 1/2

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Ultrasonic control of the depth ...

analysis and tests for hardness and microhardness yields a good agreement. It is pointed out that the method described is applicable only in cases when, in the inhomogeneous metal, the structure becomes coarser with the depth increasing. There are 24 references.

Z. Fridman

[Abstracter's note: Complete translation]

Card 2/2

ZAROCHENTSEV, G.V., kand.tekhn.nauk

Ultrasonic testing method for studying the structural
nonuniformity of rails. Vest.TSNII MPS 21 no.6:33-36
'62. (MIRA 15:9)

(Railroads—Rails—Defects)
(Ultrasonic testing)

7 G0H67_A5 EEP1A/EAP1B/EZM1A/EPTC A /EPTC B /ETCM1/ECPUB/T/EAP1I/EAP1V //

1. 1990年12月25日，在《人民日报》发表署名文章《中国要实行“三权分立”》，主张在中国实行“三权分立”和“多党制”。

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

TOPIC TAGS: ultrasonic equipment, metallographic analysis, flaw detection.

ABSTRACT: This article discusses means for improving methods of inspection of hardened metal. It was found that a small overexposure and metal grain scatter-
ing can be used to detect surface defects. A method for detecting surface defects may be used to

dition. Randomly chosen large errors in measurements, therefore the method is not suitable for complex structures such as porous structures, structural reconstruction.

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ACCESSION NR: 7P5015101

the form of the signal and its variation with distance between the transmitting and receiving probes. The structure of the hardened layer to a depth of not more than 20 mm is evaluated according to the ratio of the amplitude of the signal to the structural reverberational noise level. The greater this ratio the more dispersed the structure. Orig. art. has: 6 figures.

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1. 35525-05 EMI(E)/I/EMI(E)/EMI(B)/EMI(H)/EMI(C) Feb 1965 51

AUTHORS: AEFODCHILSGZ, U. Y.; IUSHEV, G. I. B.

TITLE: Reverberation method for inspecting metallic structures

SOURCE: Zavodskaya laboratoriya, v. 31, no. 2, 1965, 198-201

TOPIC TAGS: ⁶ultrasound, ⁴metal structure, hardened structure, steel, aluminum, zinc alloy, metal grain structure, perlite, martensite

WISCONSIN 195005175

composition. The results are shown in Fig. 2 on the Enclosure. Orig. art. has:

ABSTRACT: "The following is a summary of the results of the investigation of the

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ENCLOSURE: 01

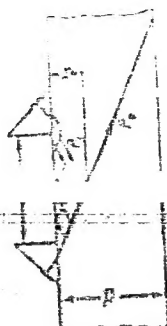


Fig. 1. Acoustic scheme of the reverberation method for inspecting the structure of metals

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ACCESSION NR: AP5005476

ENCLOSURE 02

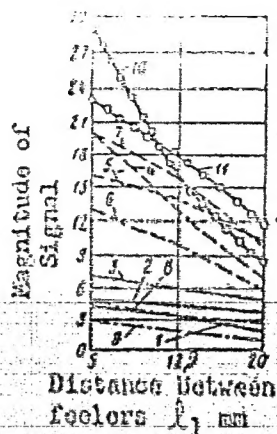


Fig. 2. Results of investigation 11 specimens of railroad rails
 of the type R60. The curves show the dependence of the magnitude of the signal on the distance between the factors. The curves are labeled with the number of the specimen.